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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,473	07/23/2003	Ralph R. Mehr	1062/5	7421

7590 06/19/2006
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Upper Marlboro, MD 20772

EXAMINER

NGUYEN, DINH Q

ART UNIT	PAPER NUMBER
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3752

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,473

Applicant(s)

MEHR, RALPH R.

Examiner

Dinh Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 25-38 is/are pending in the application.
- 4a) Of the above claim(s) 3-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 25-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 25-31, and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Livingston in view of Ballu.

Livingston discloses an automatic fire sprinkler device comprising: an automatic fire sprinkler 44 for fluidly communicate with a water flow path 52, an orifice formed by seal ring 36 that is associated with the automatic fire sprinkler 44, the orifice being responsive to a water inlet pressure (see column 3, lines 39-45) to provide a plurality of different open cross sections, as the water inlet pressure increased, the pressure pushing on the diaphragm 34 and moving the diaphragm away from the seal ring, thus creating a plurality of different open cross sections and reaching the maximum opening at the dotted position in figure 1. Livingston does not teach that each open cross sections of the orifice is uniquely corresponded to a unique water inlet pressure. However, Ballu discloses a deformable nozzle with orifice 5 that each open cross sections of the orifice is uniquely corresponded to a unique water inlet pressure (column 2, lines 62+), and Ballu orifice is in an opening condition at a negative pressure as shown in figure 1. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Livingston with an orifice such that each open

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cross sections of the orifice is uniquely corresponded to a unique water inlet pressure as suggested by Ballu. Doing so would provide a way to control flowing characteristics of fluid (see Ballu column 2, lines 24+).

3. Claims 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Livingston in view of Ballu as applied to claims 1, 2, 25-31, and 35-38 above, and further in view of Kraft.

Livingston in view of Ballu disclose an automatic fire sprinkler device comprising: an automatic fire sprinkler 44 for fluidly communicate with a water flow path 52, an orifice formed by seal ring 36 that is associated with the automatic fire sprinkler 44, the orifice being responsive to a water inlet pressure (see column 3, lines 39-45) to provide a plurality of different open cross sections, as the water inlet pressure increased, the pressure pushing on the diaphragm 34 and moving the diaphragm away from the seal ring, thus creating a plurality of different open cross sections and reaching the maximum opening at the dotted position in figure 1. Livingston does not teach a plurality of leaves of the flow-impeding element. However, Kraft discloses a flow-impeding element 11 with a plurality of leaves 13 (see figures 3 and 5). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Livingston and Ballu with a plurality of leaves flow-impeding element as suggested by Kraft. Doing so would provide a way to control flowing of fluid (see Kraft's column 1, lines 3-9).

Response to Arguments

4. Applicant's arguments filed 4/26/06 have been fully considered but they are not persuasive.

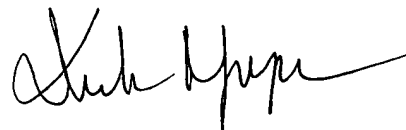
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5. Applicant's arguments with respect to claims 1, 2, 25-38 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dinh Q. Nguyen whose telephone number is 571-272-4907. The examiner can normally be reached on Monday-Thursday 6:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Scherbel can be reached on 571-272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dinh Q. Nguyen
Primary Examiner
Art Unit 3752

dqn